AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Original) A method for expansion of a stem cell comprising contacting the stem cell in vitro with an amount of a modulator of an AML1-ETO target factor function effective to inhibit differentiation of the stem cell while not inhibiting self-renewal of the stem cell, and exposing the stem cell to cell growth conditions such that the cell proliferates.
2. (Original) The method of claim 1 wherein the cell is a hematopoietic stem cell.
3. (Original) The method of claim 2 where the hematopoietic stem cells are isolated from bone marrow, cord blood, peripheral blood CD34+ cell populations or peripheral blood CD34- cell populations.
4. (Original) The method of claim 2 where the hematopoietic stem cells are derived from a human.
5. (Original) The method of claim 2 where the expansion is carried out in vitro.
6. (Original) The method of claim 1 where the stem cells are isolated from a tissue selected from the group consisting of pancreas, muscle, nerve, skin and adipose.
7. Cancelled
8. (Original) The method of claim 6 where the expansion is carried out in vivo.
9. (Original) The method of claim 1 where the AML1-ETO target factor is a transcription factor.
10. (Original) The method of claim 9 where the transcription factor is selected from the group consisting of AML1, C/EBP alpha, PU.1 and a combination of any of the foregoing.
11. (Original) The method of claim 1 where the modulation of an AML1-ETO target factor function is an inhibition of function.
12. (Original) The method of claim 1 where the modulation of an AML1-ETO target factor function is a stimulation of function.
13. (Original) The method of claim 1 where the modulation of an AML1-ETO target factor function is a translocation of function.

14. (Original) The method of claim 11 where the inhibition occurs as a result of inhibition of the synthesis of the AML1-ETO target factor.
15. Cancelled
16. Cancelled
17. (Original) The method of claim 11 where the inhibition occurs as a result of inhibition of interaction with cellular factors that contributes to the activity of the AML1-ETO target factor.
18. Cancelled
19. Cancelled
20. (Original) The method of claim 11 where the inhibition occurs as a result of inhibition of DNA binding of the AML1-ETO target factor.
21. Cancelled
22. Cancelled
23. (Original) The method of claim 11 where the inhibition occurs as a result of stimulated degradation of mRNA encoding the AML1-ETO target factor.
24. Cancelled
25. Cancelled
26. (Original) The method of claim 11 where the inhibition occurs as a result of inhibition of transcription of the AML1-ETO target factor.
27. Cancelled
28. Cancelled
29. (Original) The method of claim 26 where said inhibition of transcription is accomplished using small interfering RNAs.
30. (Original) The method of claim 1 where the modulator of an AML1-ETO target factor function is an AML1-ETO fusion protein.
31. (Original) The method of claim 30 where said AML1-ETO fusion protein is expressed in said stem cell.
32. (Original) The method of claim 31 where said expression is a transient expression.

33. (Original) The method of claim 30 where said AML1-ETO fusion protein comprises a domain that reversibly activates and inactivates an AML1-ETO fusion protein function in the presence and absence, respectively, of an inducer.
34. (Original) The method of claim 33 where the domain is the hormone binding domain of the estrogen receptor and the inducer is estrogen or tamoxifen.
35. (Original) The method of claim 1 where the modulator of an AML1-ETO target factor function is an inhibitor of an AML1 activity.
36. (Original) The method of claim 1 where the modulator of an AML1-ETO target factor function is an inhibitor of a C/EBP alpha activity.
37. (Original) The method of claim 1 where the modulator of an AML1-ETO target factor function is an inhibitor of a PU.1 activity.
38. (Original) The method according to claim 1 wherein said contacting is carried out by culturing said precursor cell in medium containing a purified agonist in soluble form.
39. (Original) The method according to claim 1 wherein substantially no differentiation of the cell occurs.
40. (Original) The method of claim 1 where said modulating is direct or indirect.

41-123 Cancelled